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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,450	01/23/2004	Toshinori Nagahashi	118464	5463

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EXAMINER

BITAR, NANCY

ART UNIT

PAPER NUMBER

2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/762,450	Applicant(s) NAGAHASHI, TOSHINORI	
	Examiner Nancy Bitar	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date
:06/29/06,11/17/05,08/09/05,01/23/04.

✓ ✓ ✓ ✓

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

2. Claim 8 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 8 defines a "computer program" embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that

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reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed "a computer program" can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation "a computer program for a computer " is generally narrative and indefinite, failing to conform with current U.S. practice. It appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors.

Claim Rejections - 35 U.S.C. § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3,6-10,12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kondo et al (2002/0111939).

As to claim 1, Kondo et al. teaches an image retrieving device (image data retrieval apparatus, 100,200, figure 1) for classifying and retrieving an image by detecting an object in the image and adding a keyword, comprising:

an image storing section for storing the image which is supposed to be classified and retrieved together with the keyword in a database(image database, 105,figure 1);

an object acknowledging section for acknowledging a predetermined object in the image which is inputted (a user designates an image or holder to be registered. In accordance with the designation a first image is input at step S803, step S805 a decision is made as to whether the input image includes any figure of a person. If so then at step S807 all figures in the image have their respective face images cut out , paragraph [0081-0082]);

a keyword proposing section for proposing the keyword which relates to the object which is acknowledged by the object acknowledging section (step S813 a name is entered to correspond to the face image. Then at step S815 the face image cut out and the entered name are correlated with each other and thus registered in the face dictionary, paragraph [0084]); and an object information inputting section for confirming, adding, and correcting the keyword which is proposed by the keyword proposing section (from step s811 to s819, paragraph [0086-0088].

As to claim 2, Kondo et al. teaches an image retrieving device according to claim 1 wherein the object acknowledging section comprises: a human detection condition

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inputting section for setting up conditions for determining whether or not the image contains a human(step s805, a decision is made as to whether the input image includes any figure of a person) ; a face image detecting section for detecting a face image in the image; and a face image similarity determining section for detecting a face image which is detected by the face image detecting section so as to detect a similar face image stored in the database according to the detected face imaged (step s809 an image of the face of a first person is read and at step s811 a decision is made as to whether the face image has already been registered in a face dictionary, paragraph [0084-0087]).

As to claim 3, Kondo et al. teaches an image-retrieving device according to claim 2 wherein the object information inputting section serves as a personal information inputting section for confirming, adding, and correcting personal information(the information obtains more than one item of information, paragraph [0020]).

As to claim 5, Kondo et al teaches an image retrieving device according to claim 2 further comprising a keyword proposing section for proposing the keyword to the image which is inputted last in a case in which the similar face image is not detected by the face image similarity determining section (paragraph [0084] if not a keyword name is entered to correspond to the face image).

As to claim 6, and 9-10 and 12, Kondo et al teaches an image-retrieving device according to claim 1 wherein the keyword is added according to a retrieving template, which is formed by the keywords, which have hierarchical structure (paragraph [0094-0097]).

As to claim 7 differ from claim 1 only in that claim 7 is a method claim whereas; claim 1 is an apparatus claim. Thus, claim 7 is analyzed as previously discussed with respect to claim 1 above.

As to claim 8 differ from claim 1 only in that claim 8 is a computer claim whereas; claim 1 is an apparatus claim. Thus, claim 8 is analyzed as previously discussed with respect to claim 1 above.

Claim Rejections - 35 U.S.C. § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kondo et al. in view of Luo et al. (US 6,826,316).

While Kondo meets a number of the limitations of the claimed invention, as pointed out more fully above, Kondo fails to specifically teach the a skin color area detecting section for detecting a skin color area in the image is used when the human is detected.

Specifically, Luo et al. discloses a study of a photographic image database of over 2000 images, over 70% of the photographic images have people and about the same number of images have sizable faces in them. Indeed, people are the single most important subject in photographs. Moreover, Luo et al teaches the use of an image retrieval system by providing perceptually significant features of the image where the use of skin detection as one of a semantic feature utilizes color image segmentation and a predetermined skin where the skin region classification is based on maximum probability according to the average color of a segmented region. The probabilities are mapped to a belief output via a sigmoid belief function. Because the use of skin detection helps retrieve feature based similarities of faces in an image by computing a belief value for all pixels using the Bayes net (column 6, lines 61-67). It would have been obvious to one of ordinary skill in the art to use the skin algorithm in Kondo in order to get better and accurate recognition result thus getting certain identification. Therefore, the claimed invention would have been obvious to one of ordinary skill in the art at the time of the invention by applicant.

As to claim 11, Kondo et al teaches an image-retrieving device according to claim 1 wherein the keyword is added according to a retrieving template, which is formed by the keywords, which have hierarchical structure (paragraph [0094-0097])

Conclusions

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Ray et al (US 2005/0105803) is cited to teach a method for selecting an emphasis image from a collection of images based on facial identification,

Cooper et al (US 2001/0043727) is cited to teach a method for cataloging facial images stores an image associated with at least one facial image in a face database.

Koshimizu et al (Keyword and Face Image Retrieval based on Latent Semantic Indexing, IEEE 2004) is cited to teach to annotate images and to retrieve images based on their contents by assigning keyword to images at conceptual levels.

Inquiries

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Bitar whose telephone number is 571-270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nancy Bitar

02/25/2007



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